Discussion of Klein/Ludwig/Nicolay/Spengel: Quantifying the OECD BEPS Indicators: An update to BEPS Action 11

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BEPS Indicators

- **Aim of BEPS Action 11:**
  "The BEPS Action 11 report *Measuring and Monitoring BEPS* established methodologies to collect and analyse data on the **economic and fiscal effects of tax avoidance behaviours** and on the **impact of measures proposed under the BEPS Project**." (OECD webpage)

- 2015: **OECD introduced six indicators** to measure and evaluate BEPS activity.

- **Klein/Ludwig/Nicolay/Spengel: Update** the three "most convincing" indicators and analyse their development over time.

- Results mixed: If anything, results suggest that profit shifting increased

Key question

- Do these indicators capture profit shifting (levels and changes)? Are they suited to determine the effect of the OECD's BEPS process on shifting volumes?

Do these indicators adequately reflect (changes in) profit shifting (driven by OECD's BEPS process)?

- Probably not.
- Profit shifting genuinely unobserved. Difficult to ferret it out in observed data.
- (Changes in) indicators might capture (changes in) third factors.
- Many ad hoc definitions in construction of indicators.
- Even if shifting was adequately captured: changes over time may relate to tighter anti-BEPS provisions or changes of other shifting determinants.

Indicator 1

- **Definition**
  - Define two groups of countries: high and low ratio of inward FDI to GDP
  - Net FDI, threshold: 50%; Gross FDI, threshold: 200%
  - Compare the sum of FDI/GDP-ratios between high and low-ratio countries
  - Results depend on "base year": constant or increasing over time
- **Shortcomings**
  - May capture real activity
  - No link to BEPS incentives (i.e. countries' tax rates)
  - Thresholds ad hoc: change in indicator depends on year for which low and high-ratio group is defined
  - Changes in indicators may be driven by determinants of real investments (unrelated to shifting): trade openness, business cycles,...
  - Small country problem

Indicator 4

- **Definition**
  - Compare effective tax rate of NEs und MNEs and development over time
  - Data: Unconsolidated financial accounts from ORBIS
  - Methodology: Propensity score matching
  - Results: With matching no particular time trend in ETR difference
- **Shortcomings**
  - Does **not** capture profit shifting as profit in denominator: Rather, conditional on profit, how much taxes are paid
  - Tax negotiations: Low effective tax rates for footloose MNEs
  - Low effective tax rates may be explained by tax deductions (difference in investment rates), special tax incentives (e.g. for R&D) or loss offsets
  - Sloppy definition: differentiate between MNEs with+without haven link; if at all, construct a measure based on consolidated data

Indicator 5:

- **Definition**
  - Use macro data to capture profit shifting through intangibles
  - Define ratio of royalty receipts to R&D spending for each country
  - Threshold of 50% to define two groups of countries
  - Compare average patent-R&D-ratio of high-ratio and low-ratio country
  - Results: Slight upward trend, depending on definition
- **Shortcomings**
  - Measure for "R&D productivity": may e.g. capture sorting of highly valuable R&D; not profit shifting
  - Index variation over time misleading; time lag of R&D and patent output
  - Definition lacks a direct link to tax incentives
  - Arbitrary threshold: index-change over time depends on 'base year'
  - Small country problem

- **Indicators unlikely to be particularly useful**
  - May vary for all kinds of reasons other than changes in profit shifting
  - Klein et al: find that indicators point to more rather than less profit shifting
  - BEPS-actions caused more profit shifting? $\rightarrow$ Of course, not!
  - Would also NOT be the case if the indicators showed the opposite sign... !
- **It is important to keep track of size of shifting activities and determine the effect of the new anti-BEPS measures (especially as some likely increased compliance+administration costs and come with distortions to real activity)**
  - You need more complex models to come up with more convincing estimates of level and (reform-driven) changes in BEPS.
  - Look at particular reforms, use staggered changes for empirical identification; filter out common trends; look at particular shifting channels
  - Even in academia: debate on data, methods and size of profit shifting
  - There are strength and weaknesses to all data sources and approaches and we have no clear understanding how big the bias is: so the range of shifting estimates is large; large confidence intervals

BEPS Indicators

- **Dynamic field**: new methods and data sources (country-by-country reporting)
- For OECD indicators: Is there a meaningful way forward?
  - Take e.g. indicator 4
  - Consolidated data for MNE groups
  - Ask question: How big is the gap in effective tax rate of MNEs (consolidated, with haven links) and NEs after accounting for reasons for differences in tax costs (different rates of R&D or other investments, different statutory tax burdens)?

- **The merits of data analyses**
  - Numbers salient in public debate:
    "X% of profit shifted to haven economies"
  - Assumptions less transparent:
    The more complex the models, the less people are willing to undertake cognitive investment to understand assumptions and mechanisms
  - Demand for 'simple' statistics:
    But simple statistics also come with strong assumptions, see above.
    "Analyses should be as simple as possible but not simpler than that." (Einstein)
  - Policy evaluation by **independent** academic research:
    OECD (designed methods to) estimate(d) size of BEPS when designing anti-BEPS actions; several instances in the paper where authors find more moderate estimates than initial BEPS report